

**...REMARKS/ARGUMENTS...**

The Official Action of September 25, 2006 has been thoroughly studied. Accordingly the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 1-28 are pending in this application.

Claims 1-12 and 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,969,066 to Enokida et al. in view of U.S. Patent No. 6,734,254 to Worm et al.

Claims 13-16 and 21-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Enokida et al.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art of record and therefore, each of the outstanding rejections of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Enokida et al as teaching:

...a fluoroelastomer and its cross-linkable composition (col. 7, lines 10-19) using the compounds, (a) vinylidene fluoride, (b) tetra-fluoroethylene, (c) perfluoro (alkyl vinyl ether) and it is also comprised of (d)  $\text{CF}_2=\text{CFOCF}_2\text{CF}_2\text{Br}$ , (e)  $\text{BrCF}_2\text{CF}_2\text{I}$ . So, Enokida et al teaches a general composition of fluoroelastomers and their physical properties that encompasses the compounds included in claims 1-12 and 17-20 except a compound listed under (d).

In the paragraph bridging pages 2 and 3 of the Office Action the Examiner states:

Although the composition taught by Enokida et al encompasses the specific compounds of the instant application, it does not specifically include compound (d) as is recited in claim 1. The generic composition of Enokida et al teaches the claimed

invention with sufficient particulars that the composition and its physical properties would have been prima facie obvious.

Further the Examiner states that:

Although the reference does not use the compound  $\text{CF}_2=\text{CFO}[\text{CF}_2\text{CF}(\text{CF}_3)\text{O}]_n\text{CF}_3$ , it would have been obvious to a person skilled in the art to further to modify the composition with the reasonable expectation of success, since Worm et. al. teaches the advantages of using  $\text{CF}_2=\text{CFO}[\text{CF}_2\text{CF}(\text{CF}_3)\text{O}]_n\text{CF}_3$ , in fluoroplastic polymers (col. 2, lines 10-26).

The Examiner concedes that Enokida et al. fails to teach applicants' monomer (d).

Worm et al. is directed to co-curable composition blends that include a peroxide-curable fluoroelastomer gum in combination with a fluoroplastic as discussed in column 1, lines 24-53.

As taught, the fluoroplastic of Worm et al. contains as much as 98.0 to 98.6 percent by mole of TFE (See column 5, line 40 through column 6, line 30).

In contrast to the present invention and Enokida et al. which are directed to fluoroelastomers and not the blend compositions of Worm et al.

Thus the teachings of Worm et al. are not strictly applicable to the teachings of Enokida et al.

Worm et al. discloses a fluoroelastomer that comprises 4 kinds of monomers, including (a) vinylidene fluoride, (b) tetrafluoroethylene, (d)  $\text{CF}_2=\text{CFO}[\text{CF}_2\text{CF}(\text{CF}_3)\text{O}]_n\text{CF}_3$ , and (e)  $\text{RfX}$ .

Worm et al. does not teach applicants' claimed monomer (c), i.e., perfluoro(methyl vinyl ether in combination with applicants' monomers (a), (b), (d) and (e).

Thus, the prior art of Enokida et al. and Worm et al. does not actually teach all of applicants' claimed monomers collectively in a single composition.

As shown in applicants' Comparative Example 1, when a fluoroelastomer was prepared from (a), (b), (d) and (e) so as to be within the teachings of Worm et al. the resulting fluoroelastomer

demonstrated an extremely poor TR<sub>70</sub> value (see Table 2 on page 21 of applicants' original specification).

Thus, it can be concluded that the teachings of Worm et al. provide no motivation for including the monomer (d) into the fluoroelastomer of Enokida et al. Otherwise, it can be seen from applicants' Examples that applicants' invention produces results which are unexpected over the teachings of Worm et al. and over the combination of Enokida et al. and Worm et al.

It is noted that the monomer (c) is essential for producing a desired TR<sub>70</sub> value in the present invention as disclosed in the last paragraph on page 4 of applicants' specification which reads:

Perfluoro(methyl vinyl ether) as component (c) is an essential component for giving a flexibility to the resulting copolymers and also for improving the low-temperature characteristics, particularly TR<sub>70</sub> value in the TR test.

There is no suggestion in either Enokida et al. or Worm et al. that the inclusion of monomer (c) improves TR<sub>70</sub> values, particularly in combination with monomer (d).

Therefore, the prior art does not render applicants' claimed invention obvious within the meaning of the statute.

Other characteristics that distinguish applicants' claimed fluoroelastomers over the prior art are set forth in applicants' original specification.

Based upon the above distinctions between the prior art of record as relied upon by the Examiner and the present invention, and the overall teachings of the prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon the prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding prior art rejections of the claims should hence be withdrawn.

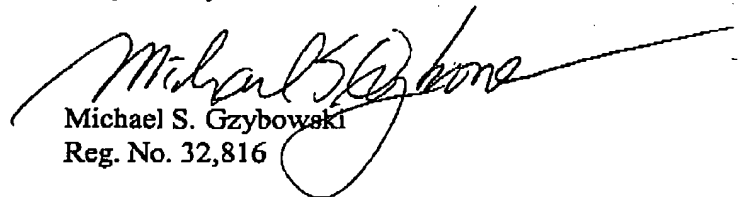
Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicant's patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



Michael S. Gzybowski  
Reg. No. 32,816

BUTZEL LONG  
350 South Main Street  
Suite 300  
Ann Arbor, Michigan 48104  
(734) 995-3110

163939.1